OIPE CO									
	Sheet 1 of 5								
Fo	Form PTO-1449 Modified Docket No. UPAP-0287 Serial No. 09/486,625								
Li		Patent and Publications ited by Applicant	Applicant Ayyavoo et al.						
U.S. Department of Commerce Patent and Trademark Office Filing Date September 13, 2000 Group 1643 648									
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)									
	AA Aldrovandi, et al., "Replication and Pathogenicity of Human Immunodeficiency Virus Type 1 Acessory Gene Mutants in SCID-hu Mice", J. Virology, 1996, Vol.70, No. 3, pp. 1505-1511								
	AB Ameisen, et al., "Antibody Response to the HIV-1 Regulatory GEI Products NEF, VIF, and VPR in HIV-1 Infectious Seronegative Individuals," Int Conf. AIDS, 1989, Vol. 5, Page 533								
	AC	Ayyavoo, et al., "Analysis of Genetic Heterogeneity, Antigenicity, and Biological Characteristics of HIV-1 in a Maternal Transmitter and Nontransmitter Patient Pair," DNA and Cell Biology, 1996, Vol. 15, No. 7, pp. 571-580							
	AD	Arya et al., "Three Novel Genes of Human T-lymphotropic Virus Type III: Immune Reactivity of their Products with Sera from Acquired Immune Deficiency Syndrome Patients," <i>Proc. Natl. Acad. Sci.</i> USA, 1986, Vol. 83, pp. 2209-2213							
	AE	Blanc et al., "Transcomplementation of VIF- HIV-1 Mutants in CEM Cells Suggests That VIF Affects Late Steps of the Viral Life Cycle," <i>Virology.</i> , 1993 , Vol. 193, pp. 186-192							
	AF Borman et al., "Human Immunodeficiency Virus Type 1 Vif- Mutant Particles from Restrictive Cells: Role of Vif in Correct Particle Assembly and Infectivity," J. Virol, 1995, Vol. 69, No. 4, pp. 2058-2067								
	AG Cullen et al., "Regulatory Pathways Governing HIV-1 Replication," Cell, 1989, Vol. 58, pp. 423-426								
	AH Desrosiers, "HIV with Multiple Gene Deletions as a Live Attenuated Vaccine for AIDS," AIDS Res. AndHuman Retroviruses, 1992, Vol. 8, No. 3, pp.411-421								
	AI	Dougherty et al., "Determination of Mutations in Retrovirus Replication		9					
	AJ	Fisher et al., "Biologically Diverse Mature, 1988, Vol. 334, pp.		hin a Single Hiv-1					
	AK	Fynan et al., "Dna Vaccines: Protect Gene-gun Inoculations," <i>Proc. Natl.</i>							
	AL	Gabuzda et al., "Role of vif in Replication CD4+ T Lymphocytes," J. Virol							
EXAMINER		C(Q)	DATE CONSIDERE	D 2 23 05					

Form PTO-1449 Modified Form PTO-1449 Modified Docket No. UPAP-0287 UPAP-0287 Applicant Ayyavoo et al. U.S. Department of Commerce Patent and Trademark Office OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)				
List of Patent and Publications Cited by Applicant U.S. Department of Commerce Patent and Trademark Office OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)				
Cited by Applicant U.S. Department of Commerce Patent and Trademark Office OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)				
Patent and Trademark Office September 13, 2000 1643 / 648 OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)				
AM Garrett et al., "Rev Activates Expression of the Human Immunodeficiency Virus Type 1 vif and vpr Gene Products," J. Virol, 1992, Vol. 65, No. 3, pp. 1653-1657				
AN Gibbs et al., "Construction and In Vitro Properties of HIV-1 Mutants with Deletic in "Nonessential" Genes," Aids Res. And Human Retroviruses, 1994, Vol. 10, No. pp. 343-350				
AO Goncalves et al., "Subcellular Localization of the Vif Protein of Human Immunodeficiency Virus Type 1," J. Virol, 1994, Vol. 68, No. 2, pp. 704-712				
AP Guy et al., "A Specific Inhibitor of Cysteine Proteases Impairs a Vif-Dependent Modification of Human Immunodeficiency Virus Type 1 Env Protein," J. Virol, 1991, Vol. 65, No. 3, pp.1325-1331				
AQ Hevey et al., "Complementation of Human Immunodeficiency Virus Type 1 vif Mutants in Some CD4+ T-Cell Lines," Virus Res, 1994, Vol. 33, pp. 269-280				
AR Kan et al., "Identification of HTLV-III/LAV sor Gene Product and Detection of Antibodies in Human Sera," Science, 1986, Vol. 231, pp. 1553-1555				
AS Lamhamedi et al., "Qualitative and Quantitative Analysis of Human Cytotoxic T lymphocyte Responses to HIV-1 Proteins," AIDS, 1992, Vol. 6, No. 11, pp. 1249 1258				
AT Ma et al, " Cysteine Residues in the Vif Protein of Human Immunodeficiency Vi Type 1 Are essential for Viral Infectivity," J. Virol, 1994, Vol. 68, No. 3, pp. 171 1720				
AU Mahalingam et al., "The Carboxy-Terminal Domain is Essential for Stability and Not for Virion Incorporation of HIV-1 Vpr into Virus Particles," Virol, 1995, Vol. 214, pp. 647-652				
AV Meyerhans et al., "Temporal Fluctuations in HIV Quasispecies in Vivo Are Not Reflected by Sequential HIV Isolations," Cell, 1989, Vol. 58, pp. 901-910				
AW Michael et al., "Defective Accessory Genes in a Human Immunodeficiency Virus Type 1-Infected Long-Term Survivor Lacking Recoverable Virus," J. Virol, 1999 Vol. 69, No. 7, pp. 4228-4236				
AX Nagashunmugam et al., "Cell-Free HIV-1 _{Zr6} vif Mutants Are Defective in Bindin Peripheral Blood Mononuclear Cells and in Internalization," DNA Cell Biol., 199 Vol. 15, No. 5, pp. 353-361				
EXAMINER DATE CONSIDERED 2 23105				

		OIPE CO.					
F	orm 1	PTO-1449 Modified TRADERING	Docket No. UPAP-0287	Sheet 3 of 5 Serial No. 09/486,625			
1		Patent and Publications lited by Applicant	Applicant Ayyavoo et al.	05/400,025			
, τ		epartment of Commerce and Trademark Office	Filing Date September 13, 2000	Group 648			
· C	THE	R DOCUMENTS (Including Author	r, Title, Date, Pertinen	t Pages, Etc.)			
(M)	AY Oberste et al., "Conservation of Amino Acid Sequence Motifs in Lentivirus Vif Proteins," Virus Genes, 1992, Vol. 6, No. 1, pp. 95-102						
	AZ Pircher et al., "Viral Escape by Selection of Cytotoxic T Cell-Resistant Virus Variants in Vivo," Nature, 1985, Vol. 346, pp. 629-633						
	ВА	Ratner et al., "Complete Nucleotide Sequence of the AIDS Virus, HTLV-III," Nature, 1985, Vol. 313, pp. 277-284					
	ВВ	Sakai et al., "Cell Dependent Requirement of Human Immunodeficiency Virus Type 1 Vif Protein for Maturation of Virus Particles," J. Virol, 1993, Vol. 67, No. 3, pp. 1663-1666					
	ВС	Schwartz et al., "Expression of Human Immunodeficiency Virus Type 1 vif and vpr mRNAs Is Rev-dependent and Regulated by Splicing," Virol, 1991, Vol. 183, pp. 677-686					
	BD	Schwander et al., "Prevalance of Antibodies to Recombinant Virion Infectivity Factor in the Sera of Prospectively Studied Patients with HIV-1 Infection," J. of Medical Virol, 1992, Vol. 36, pp. 142-146					
	BE Shackett et al., "Analysis of the vif Gene of Feline Immunodeficiency Virus," Virol, 1994, Vol. 204, pp. 860-867						
¥ .	BF Sodroski et al., "Replicative and Cytopathis Potential of HTLV-III/LAV with sor Gene Deletions," Science, 1986, Vol. 231, pp. 1549-1553						
	BG Sova et al., "Conservation of an Intact Human immunodeficiency Virus Type-1 vif gene In Vitro and In Vivo," J. Virol, 1995, Vol. 69, No. 4, pp. 2557						
	BH Srinivasan et al., "Molecular Characterization of Human Immunodeficiency Virus from Zaire: Nucleotide Sequence Analysis Identifies Conserved and Variable Domains in the Envelope Gene," Gene, 1987, Vol. 52, pp. 71-82						
	BI	Tang et al., " Genetic Immunization Response," <i>Nature</i> , 1992, Vol. 356,	_	Eliciting an Immune			
	BJ	Trono., " HIV Accessory Proteins: 1 1995, Vol. 82, pp. 189-192	Leading Roles for the S	upporting Cast," Cell,			
EXAMINER DATE CONSIDERED 2/23/05							

		TRADENAM.		Sheet 4 of 5				
	Form	PTO-1449 Modified	Docket No. UPAP-0287	Serial No. 09/486,625				
		f Patent and Publications Cited by Applicant	Applicant Ayyavoo et al.					
	U.S. D Paten	Department of Commerce and Trademark Office	Filing Date September 13, 2000	Group 1648				
	OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)							
10	BK Ulmer et al., "Heterologous Protection Against Influenza by injection of DNA Encoding a Viral Protein," Science, 1993, Vol. 259, pp. 1745-1749							
	BL Volsky et al., " the Human Immunodeficiency Virus Type 1 vif Gene: The Road from an Accessory to an Essential Role in Human Immunodeficiency Virus Type 1 Replication," Curr. Topics Micro. Immunol., 1995, Vol. 193, pp. 157-168							
	BM	by von Schwedler et al., "vif Is Crucial for Human Immunodeficiency Virus Type 1 Proviral DNA Synthesis in Infected Cells," J. Virol., 1993, Vol. 67, No. 8, pp. 4945-4955						
	BN	Wang et al., "Gene Inoculation Generates Immune Responses Against Human Immunodeficiency Virus Type 1," <i>Proc. Natl. Acad. Sci. USA</i> , 1993, Vol. 90, pp. 4156-4160						
,	ВО	BO Wang et al., "DNA Inoculation Induces Neutralizing Immune Responses Aganist Human Immunodeficiency Virus Type 1 in Mice and Nonhuman Primates," DNA And Cell Biol., 1993, Vol. 12, No. 9, pp. 799-805						
	BP Wang et al., "Nucleic acid-based Immunization Aganist HIV-1 Induction of Protective in vivo Immune Responses," AIDS, 1995, Vol. 9 (Suppl. A), pp. S159-S170							
	BQ Wolfs et al., "Naturally Occurring Mutations within HIV-1 V3 Genomic RNA Lead to Antigenic Variation Dependent on a Single Amino Acid Substitution," Virol., 1991, Vol. 185, pp. 195-205							
	BR Wieland et al., "In Vivo Genetic Variability of the HIV-1 vif Gene," Virol., 1994, Vol. 203, pp. 43-51							
	BS Wieland et al., "Antigenic Domains of the HIV-1 vif Protein as Recognized by Human Sera and Murine Monoclonal Antibodies," AIDS Res. Human. Retrovir., 1991, Vol. 7, No. 11, pp. 861-867							
b	ВТ	Yang et al., "Phosphorylation of Vif a Chem., 1996, Vol. 271, No. 17, pp. 10	und Its Role in HIV-1 Ro 0121-10129	eplication," J. Biol.				
EXAMINE	EXAMINER L(O) DATE CONSIDERED 7/23/05							

NM 22 mm

ŧ			OTPE	ica)		
			JAN 2.5 5001	Age .		Sheet 5 of 5
	Forn	1 PTO-1449 Mod	ified TRADEMEN	Docket No. UPAP-0287	Serial N 09/486,	lo.
	List o	of Patent and Publica Cited by Applicant	tions	Applicant Ayyavoo et al.		RECEIVE
	U.S. I Pater	Department of Comment and Trademark Of	Filing Date September 13, 2000	Group 1643	JAN 24 200!	
		U.	S. PATENT DO	CUMENTS		CHCENTER 1600/2900
Examiner Initial		Document No.	Date	Name	Class	Subclass
<u>100</u>	BU	4,945,050	07/31/90	Sanford et al.	435	172.1
	BV	5,036,006	07/30/91	Sanford et al.	435	170.1
	BW	5,593,972	01/14/97	Weiner et al.	514	44
-	вх	5,589,466	12/31/96	Felgner et al.	514	44
		·		·		
	<u> </u>					
	<u></u>					
		FORE	IGN PATENT D	OCUMENTS		
Examiner Initial		Document No.	Date	Country	Tra YES	nslation NO
(9)	BY	WO 90/11092	10/04/90	PCT		
	BZ	WO 93/17706	09/16/93	PCT		-
	CA	WO 93/23552	11/25/93	PCT		_
	СВ	WO 94/16737	08/04/94	PCT	~	— .
EXAMINER	R			DATE CONSIDEREI	D 21	23105

•

TE THAUE!	For	n PTO-1449 Modified	Docket No. UPAP-0287	Sheet 1 of Serial No. 09/486,625
		of Patent and Publications Cited by Applicant several sheets if necessary)	Applicant Velpandi Ayyavoo et	al.
U.S. Department of Commerce Patent and Trademark Office			Filing Date September 13, 2000	Group -1643 648
	ОТН	ER DOCUMENTS (Including A	Author, Title, Date, Pertinen	t Pages, Etc.)
AA Ayyavoo V, et al. "Develpoment of genetic vaccines for pathogenic genes: construction of attenuated vif DNA immunization cassettes", Aids, 1997, 11 1444				
	AB	Kim, J. J. et al. "Development Vaccine, 1997, 15(8), pp 879-8		e vaccine for HIV-1",
	AC	Miller, R. H. et al. "HIV access 1997, 3(4), pp 389-394	sory proteins as therapeutic tar	gets", <i>Nature Medici</i> i
<u> </u>	1			
<u> </u>				
.				

.

•

•

OIFE	Form	PTO-1449 Modif	ied	Docket No. UPAP-0287	Serial N 09/486,6		
16 2 9 2001 6.) (Patent and Publication Patent and Publication Patent Paten		Applicant Velpandi Ayyavoo et al.			
THADE W		epartment of Comme and Trademark Office		Filing Date September 13, 2000	Group 1643		
		U. S	S. PATENT D	OCUMENTS			
Examiner Initial		Document No.	Date	Name	Class	Subclass	
 · · · · · · · · · · · · · · · · · ·							
						`	
		FORE	IGN PATENT	T DOCUMENTS	L	<u></u>	
Examiner Initial		Document No.	Date	Country	Tr. YES	anslation NO	
70	AD _	WO 95/05851	03/02/95	PCT			
	• ;						
EXAMINE	R	(10)		DATE CONSIDERE	D 2/2	3/05	